

ANALYTICA CHIMICA ACTA

An international journal devoted to all branches of analytical chemistry

(Full texts are incorporated in CJESEVIER, a file in the Chemical Journals Online database available on STN International; Abstracted, indexed in: Aluminium Abstracts; Anal. Abstr.; Biol. Abstr.; BIOSIS; Chem. Abstr.; Curr. Contents Phys. Chem. Earth Sci.; Engineered Materials Abstracts; Excerpta Medica; Index Med.; Life Sci.; Mass Spectrum. Bull.; Material Business Alerts; Metals Abstracts; Sci. Citation Index)

VOL. 378 NOS. 1-3

CONTENTS

January 4, 1999

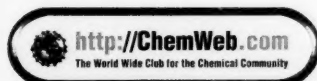
Luminescence Analysis

- Analytical applications of tris(2,2'-bipyridyl)ruthenium(III) as a chemiluminescent reagent
R.D. Gerardi, N.W. Barnett and S.W. Lewis (Vic. 3217, Australia) 1
- Detection of active methylene compounds having cyano and carbonyl groups with chemiluminescent reaction using tris(2,2'-bipyridine)ruthenium(III) prepared by on-line electrochemical oxidation
K. Saito, S. Murakami (Kobe, Japan), S. Yamazaki (Okayama, Japan), A. Muromatsu, S. Hirano, T. Takahashi, K. Yokota and T. Nojiri (Kobe, Japan) 43
- Interaction studies between europium and a surfactant cage "TAC8" by time-resolved laser-induced fluorescence
C. Moulin (Gif sur Yvette, France), C. Larpent (Versailles, France) and D. Gazeau (Gif sur Yvette, France) 47

Electrophoresis and Chromatography

- Flow injection analysis—capillary electrophoresis system with hydrodynamic injection
P. Kuban, R. Pirmohammadi and B. Karlberg (Stockholm, Sweden) 55
- Method development and validation for the simultaneous determination of dyes in foodstuffs by capillary zone electrophoresis
J.J. Berzas Nevado, C. Guiberteau Cabanillas and A.M. Contento Salcedo (Ciudad Real, Spain) 63
- Open tubular capillary electrochromatography with adsorbed stationary phase
Z. Liu, H. Zou, J.Y. Ni and Y. Zhang (Dalian, China) 73
- Quantitative analysis of human serum albumin—drug interactions using reversed-phase and ion-exchange liquid chromatography
T. Hanai (Kyoto, Japan), R. Miyazaki and T. Kinoshita (Tokyo, Japan) 77
- Off-line dansylation of amines using C₁₈ solid-phase packings: study of the fluorescence and chemiluminescence detection by post-column derivatization with oxalic acid bis(2,4,6-trichloro phenyl ester)/H₂O₂ in liquid chromatography. Determination of amphetamines in urine samples
C. Molins-Legua, P. Campíns-Falcó and A. Sevillano Cabeza (Valencia, Spain) 83
- Determination of components in biological media by ion chromatography with series bulk acoustic wave detection
X.Y. Yang, W.Z. Wei and S.Z. Yao (Changsha, China) 95
- Iminoketonate complexes of Cu(II) chemically bonded to silica in gas chromatography
W. Wasiak and I. Rykowska (Poznań, Poland) 101

(Continued overleaf)



<http://chemweb.com/gateways/elsevier.html>



ContentsDirect, the free e-mail alerting service, delivers the table of contents for this journal directly to your PC, prior to publication. The quickest way to register for **Contents Direct** is via the Internet at: <http://www.elsevier.nl/locate/ContentsDirect>. If you don't have access to the Internet you can register for this service by sending an e-mail message to cdsubs@elsevier.co.uk – specifying the title of the publication you wish to register for.

Flow Injection Analysis

- Continuous, pulsed and stopped flow in a μ -flow injection system (numerical vs experimental)
E.B. van Akker, M. Bos and W.E. van der Linden (Enschede, Netherlands) 111

Sensors and Electroanalytical Chemistry

- Optical ion sensing with immobilized thin films of photocrosslinked decyl methacrylate
T.M. Ambrose and M. E. Meyerhoff (Ann Arbor, MI, USA) 119
- Humidity-sensitive optode membrane based on a fluorescent dye immobilized in gelatin film
M.M.F. Choi and O. Ling Tse (Hong Kong, China) 127
- Cathodophoresis paint insulated carbon fibre ultramicro disc electrode and its application to in vivo amperometric monitoring of quantal secretion from single rat melanotrophs
X. Zhang, B. Ogorevc, M. Rupnik, M. Kreft and R. Zorec (Ljubljana, Slovenia) 135
- Lead-selective electrode by using benzyl disulphide as ionophore
A. Abbaspour and F. Tavakoli (Shiraz, Iran) 145
- Amperometric determination of epinephrine with an osmium complex and Nafion double-layer membrane modified electrode
J.-A. Ni, H.-X. Ju, H.-Y. Chen (Nanjing, China) and D. Leech (Galway, Ireland) 151
- Electrocatalysis of the oxidation of alcohol and phenol derivative pollutants at vitreous carbon electrode coated by nickel macrocyclic complex-based films
J. Manriquez, J.L. Bravo, S. Gutierrez-Granados (Guanajuato, Gto, Mexico), S. Sucar Succar, C. Bied-Charreton (Cachan, France), A. Alatorre Ordaz and F. Bedioui (Paris, France) 159

Environmental Analysis

- Determination of nano-molar levels of formaldehyde in drinking water using flow-injection system with immobilized formaldehyde dehydrogenase after off-line solid-phase extraction
N. Kiba, L. Sun, S. Yokose, M.T. Kazue and T.T. Suzuki (Kofu, Japan) 169
- Study of soil humic substances by cross-polarization magic angle spinning ^{13}C nuclear magnetic resonance and pyrolysis-capillary gas chromatography
J. Zhang, J. Zhai, F. Zhao and Z. Tao (Lanzhou, China) 177
- Simultaneous determination of orthophosphate and silicate in brackish water
Å.K. Pettersson and B. Karlberg (Stockholm, Sweden) 183
- Comparison of two digestion methods for elemental determinations in plant material by ICP techniques
I. Rodushkin, T. Ruth and Å. Huhtasaari (Luleå, Sweden) 191
- Application of microwave extraction for partitioning of heavy metals in sewage sludge
B. Pérez-Cid, I. Lavilla and C. Bendicho (Vigo, Spain) 201

Process Analysis

- A compact titration configuration for process analytical applications
R. Hoogendijk (Schiedam, Netherlands) 211

Immunoassay

- Quantification of 2,4,5-trichlorophenoxyacetic acid by fluorescence enzyme-linked immunosorbent assay with secondary antibody
F. García Sánchez, A. Navas Díaz, A.F. González Díaz (Málaga, Spain) and S.A. Eremin (Moscow, Russia) 219
- Synthesis and characterisation of 8-hydroxyquinoline-bovine serum albumin conjugates as metal ion chelating proteins
G. Giraudi, C. Baggiani, C. Giovannoli, C. Marletto and A. Vanni (Torino, Italy) 227

Chemometrics

- Application and comparisons of chemometric techniques for calibration modelling using electrochemical/ICP-MS data for trace elements in UHQ water and humic acid matrices
A. Donachie, A.D. Walmsley and S.J. Haswell (Hull, UK) 235
- Qualitative and quantitative aspects of the application of genetic algorithm-based variable selection in polarography and stripping voltammetry
A. Herrero and M. Cruz Ortiz (Burgos, Spain) 245

Atomic Spectrometry

- Quantitative in situ microanalysis of minor and trace elements in biogenic calcite using infrared laser ablation – inductively coupled plasma mass spectrometry: a critical evaluation
E. Vander Putten, F. Dehairs (Brussel, Belgium), L. André (Tervuren, Belgium) and W. Baeyens (Brussel, Belgium) 261
- Increased sensitivity in thick-target particle induced X-ray emission analyses using dry ashing for preconcentration
J.-O. Lill, L. Harju, K.-E. Saarela, A. Lindroos and S.-J. Heselius (Turku, Finland) 273
- Adsorption behavior of cobalt(II) on chitosan and its determination by tungsten metal furnace atomic absorption spectrometry
H. Minamisawa, H. Iwanami, N. Arai (Chiba-ken, Japan) and T. Okutani (Tokyo, Japan) 279

UV-visible Spectrophotometry

An on-line solid phase extraction system using polyurethane foam for the spectrophotometric determination of nickel in silicates and alloys S.L.C. Ferreira, D.S. de Jesus (Salvador, Brazil), R.J. Cassella (Rio de Janeiro, Brazil and Niterói, Brazil), A.C.S. Costa (Salvador, Brazil), M.S. de Carvalho (Rio de Janeiro, Brazil) and R.E. Santelli (Niterói, Brazil)	287
Determination of peracid and putative enzymatic peracid formation by an easy colorimetric assay S. Minning (Stuttgart, Germany), A. Weiss (Düsseldorf, Germany), U.T. Bornscheuer and R.D. Schmid (Stuttgart, Germany)	293
Determination of metformin in pharmaceutical preparations using potentiometry, spectrofluorimetry and UV-visible spectrophotometry S.S.M. Hassan, W.H. Mahmoud (Cairo, Egypt), M.A.F. Elmosallamy (Zagazig, Egypt) and A.H.M. Othman (Cairo, Egypt)	299
<i>Author Index</i>	313